

## ABSTRACT:

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The present invention relates to a device for comparison CMP, which is designed to emit a control signal  $V_{cnt}$ , which is representative of a difference which exists between the input signal frequencies  $V_{dir}$  and  $V_{ref}$ .

The device according to the invention includes:

- a phase/frequency comparator PD, which supplies a regulation signal  $T_{un}$ , which is subjected to pulse width modulation according to the difference observed;
- a current source, which is designed to emit a charge current  $I_{cs}$ , with a value which is controlled by the regulation signal  $T_{un}$ ; and
- a capacitive element  $C_s$ , which is designed to generate the control signal  $V_{cnt}$ , under the effect of the charge current  $I_{cs}$ .

By means of a regulation signal  $T_{un}$ , which has a frequency which is virtually constant, the invention makes it possible to impose high-frequency variations on the control signal  $V_{cnt}$ .

Application: Frequency synthesizers

Reference: Figure 1